

IN THE CLAIMS

1. (Currently Amended): A method of simulating simultaneous receipt of a plurality of ~~channels of data~~ data streams over a network using a bandwidth less than that needed to simultaneously receive said plurality of ~~channels~~ data streams, said method comprising the steps of:

receiving one of said data streams selected by a user over said network;

transmitting said one of said data streams to said user;

receiving samples of the others of said data streams ~~data from each of said channels, said samples comprising less than all of said data comprising each of said channels;~~

storing said samples in a memory non-contiguously in time with said data streams; and

~~when a~~ responsive to said user selects newly selecting one of said other data streams ~~channels for use, reading out of from said memory said sample of data corresponding that corresponds to said newly selected data stream; and channel from said memory~~

transmitting said sample that corresponds to said newly selected data stream to said user.

2. (Currently Amended): A method as set forth in claim 1 further comprising the step of:

at or before the an end of said sample is read ~~out~~ from said memory, commencing receipt of ~~full data corresponding to said~~ newly selected data stream channel.

3. (Currently Amended): A method as set forth in claim 2 further comprising the step of:

at or before the end of said sample is completely read out of from said memory, transmitting to a source of said newly selected channel data stream a request to receive said ~~full data on said channel~~ newly selected data stream.

4. (Cancelled).

5. (Currently Amended): A method as set forth in claim 3 ~~wherein said data on each of said channels comprises data that, when received in full mode, would be received at a particular time and~~ wherein said step of receiving said samples comprises receiving said samples bearing time stamps indicating the time to which they correspond if received in full mode said corresponding data stream.

6. (Currently Amended): A method as set forth in claim 5 wherein said storing step further comprises storing said time stamps associated with said samples and storing information indicative of the ~~channel~~ data stream to which said sample corresponds.

7. (Currently Amended): A method as set forth in claim 6 wherein said step of reading ~~out~~ further comprises:

selecting for reading ~~out~~ from said stored samples a sample corresponding to said selected ~~channel~~ data stream having a time stamp most closely corresponding to a current time.

8. (Currently Amended): A method of simulating simultaneous receipt at a television of a plurality of television channels ~~of data~~ over a network using a bandwidth less than that needed to simultaneously receive said plurality of channels, said method comprising the steps of:

(1) receiving the full data for at least a selected one of said television channels;

(2) transmitting said full data for ~~one of~~ said selected television channels channel to said television;

(3) receiving samples of data from each other of said television channels, ~~said samples comprising less than all of said data comprising each of said television channels;~~

(4) storing said samples in a memory non-contiguously in time with said data streams; and

(5) ~~when~~ responsive to selection of a new one of said television channels is ~~selected~~ for viewing at said television, reading out a said sample of data corresponding to said newly selected television channel from said memory; and

(6) transmitting said sample of data corresponding to said newly selected television channel to said television.

9. (Currently Amended): A method as set forth in claim 8 further comprising the steps of:

~~(67)~~ at or before ~~the end of~~ said sample is completely read out of said memory, transmitting to a source of said ~~accessed~~ newly selected channel a request to receive said full data on said selected channel; and

(78) at or before ~~the end of~~ said sample is completely read out from said memory, commencing receipt of full data on said newly selected channel.

10. (Currently Amended): A method as set forth in claim 9 ~~wherein step (7)~~ further ~~comprises~~ comprising:

(9) ceasing receipt of said full data of said previously selected channel ~~in full mode~~.

11. (Currently Amended): A method as set forth in claim 7 further comprising the steps of:

(8) responsive to said newly selected channel remaining selected for a predetermined amount of time, at or before said sample is read, transmitting to a source of said newly selected channel a request to receive full data of said selected channel; and

(9) commencing receipt of full data of said newly selected channel ~~9 wherein steps (6) and (7) are performed only when said channel remains selected for a predetermined amount of time.~~

12. (Original): A method as set forth in claim 11 wherein said predetermined amount of time is less than a duration of said sample.

13. (Currently Amended): A method as set forth in claim 12 wherein said predetermined amount of time is an amount of time sufficiently smaller than the duration of said sample for steps (6) and (7) to be performed before ~~the end of~~ said sample is completely read.

14. (Original): A method as set forth in claim 9 wherein said data on each of said channels comprises data that, ~~when received in full mode,~~ would be received at a particular time if receiving full data for said channel and wherein said step of receiving said samples comprises receiving samples bearing time stamps indicating the time to which they correspond if receiving full data for the corresponding channel ~~received in full mode.~~

15. (Currently Amended): A method as set forth in claim 14 wherein said storing step comprises storing multiple samples per channel, including said time stamps associated with said samples, and storing information indicative of the channel to which said sample corresponds.

16. (Currently Amended): A method as set forth in claim 15 wherein said reading step ~~of reading out~~ further comprises:

selecting for reading out from said stored samples a sample corresponding to said selected channel having a time stamp most closely corresponding to a current time.

17. (Currently Amended): A method as set forth in claim 16 wherein at least some of said samples are samples corresponding correspond to times in said corresponding full data streams that are after the present time that they are stored.

18. (Original): A method as set forth in claim 17 further comprising the step of: marking samples as stale when said time stamp of said sample is earlier than the present time and wherein a sample may be overwritten when it has been marked stale.

19. (Currently Amended): A method as set forth in claim 9 wherein said samples comprise data that would ~~be~~ have been transmitted in full mode for the corresponding channel at the time the sample is taken was stored.

20. (Currently Amended): A method as set forth in claim 19 wherein a stored sample corresponding to each channel is overwritten each time a new sample corresponding to said channel is received.

21. (Original): A method as set forth in claim 8 wherein said samples are of a lower resolution than the full channel data.

22. (Currently Amended): A method as set forth in claim 8 further comprising the steps of:

responsive to a request from said television, reading out a plurality of samples, each sample corresponding to a different one of said channels;
displaying said samples simultaneously on different portions of said television.

23-38. (Cancelled).

39. (Currently Amended): A method as set forth in claim 38 8 further comprising the step of:
prioritizing said plurality of channels.

40. (Currently Amended): A method as set forth in claim 39:
wherein said prioritizing step comprises determining the amount of time users at said node watch each of said plurality of channels; and
wherein said transmitting and storing steps comprise transmitting and storing more sample data for those channels that are watched more often.

41. (Original): A method as set forth in claim 40 wherein samples are transmitted and stored more frequently for those channels that are watched more often.

42. (Original): A method as set forth in claim 40 wherein samples corresponding to channels that are watched more often are longer than samples corresponding to channels that are watched less often.

43. (Currently Amended): A method as set forth in claim 40 wherein said determining step comprises determining the amount of time that each channel is transmitted in full to said ~~node~~ television.

44-52. (Cancelled).

53. (Currently Amended): A communications network for simulating simultaneous transmission from a source to a node of a plurality of channels of data using a bandwidth less than that needed to simultaneously transmit said plurality of channels comprising:

a source for transmitting data over said network, said data comprising a plurality of channels of data;

at least one node for receiving data from said source;

a processor associated with said source, said processor programmed to transmit at least one ~~a~~ first channel of data in full to said at least one node ~~said~~ and to transmit samples of data ~~corresponding to~~ from others of said plurality of channels to said node;

a memory associated with said node for storing said samples non-contiguously with said data streams to which they correspond;

a processor associated with said node, said processor programmed to send data on said first channel ~~that is being received in full~~ to a display device and to send said samples to said memory for storage and, responsive to a user selecting a second channel for ~~forwarding to~~ viewing on said display device, reading ~~out a~~ said sample of data corresponding to said second ~~selected~~ channel from said memory.

54. (Currently Amended): A communications network as set forth in claim 53 wherein said processor associated with said node is further programmed to transmit to said source a request for full data transmission for said second selected channel responsive to said second channel remaining selected for a predetermined period of time and before the end of said sample is read out from said memory; and

wherein said processor associated with said source is further programmed to transmit said ~~at least one~~ second channel of data in full to said at least node responsive to said request.

55. (Original): A communications network as set forth in claim 54 wherein said data comprises television program data.

56. (Cancelled).

57. (Currently Amended): A communications network as set forth in claim 56 wherein said processor associated with said node is further programmed to transmit to said source a request ~~to receive~~ for said full data for said channel requested for display, said request being issued a predetermined period of time before the end of said sample is read out of said memory and wherein said processor associated with said source is further programmed to switch the ~~at least one~~ channel that is being transmitted in full to said node responsive to said request.

58. (Original): A communications network as set forth in claim 57 ~~wherein said data on each of said channels comprises data that, when received in full mode, would be received at a particular time and~~ wherein said samples further comprise time stamps

indicating the time to which they correspond if ~~received in full mode in said~~
corresponding channel and information disclosing the channel to which said data
corresponds.

59. (Original): A communications network as set forth in claim 58 wherein said
memory stores multiple samples per channel simultaneously and, when a user first
requests a channel for display, said processor associated with said node is further
programmed to read out from said memory said stored sample corresponding to said
requested ~~accessed~~ channel having a time stamp most closely corresponding to a
current time.

60. (Currently Amended): A communications network as set forth in claim 59
wherein said stored samples comprise samples corresponding to times that are after
the ~~present time~~ that they are stored.

61. (Original): A communications network as set forth in claim 60 wherein said
processor associated with said node is further programmed to mark stored samples as
stale when said time stamp of said sample is earlier than the present time and wherein
a sample may be overwritten when it has been marked stale.

62. (Original): A communications network as set forth in claim 55 wherein said
samples comprise the data that would be transmitted in full mode for the corresponding
channel at the time the sample is transmitted.

63. (Currently Amended): A communications network as set forth in claim 62 wherein said processor associated with said node is further programmed to overwrite a stored sample corresponding to each channel each time a new sample corresponding to said channel is transmitted.

64. (Original): A communications network as set forth in claim 53 wherein said samples are of a lower resolution than full channel data.

65. (Original): A communications network as set forth in claim 53 wherein, responsive to a request, said processor associated with said node is further programmed to read out a plurality of samples, each sample corresponding to a different one of said channels, for simultaneous display on said display device.

66-87. (Cancelled).